

HAMATEUR CHATTER

The Milwaukee Radio Amateurs Club

June, 2010, Volume 18, Issue 6

One of the World's Oldest Continuously Active Radio Amateur Clubs—since 1917

Presidents Letter

Next. This will be my last column. Beginning next newsletter the club will be in the capable hands of your new (recycled?) president. Dave was an excellent president in the past and I know he will do a great job in the future. He will face the same problems we faced over the last few years (and the last year by my personal experience). We need more of you to get involved in the club. The fact we didn't fill two of the officer positions is a clear indication of this problem. If you aren't interested in keeping the club going, why should the guy sitting next to you at the meeting? Please think about this and step up. Everything about this club, from its' history to its activities depends on active members.

Our next activity is field day. By now you have heard the 'new' plan for field day. If not, check the newsletter from the last two months. If you plan on operating at FD you need to share your plans via an email to yours truly so we can schedule your effort into the weekend. No reservation means you may not find an opportunity to operate!

REMEMBER, after our June meeting our NEXT meeting will be in September. MRAC is reverting to its' history and will be suspending meetings over the summer. That's how the boys did it starting in 1917 and how it ran for at least the first 40 years. We haven't figured out exactly when summer meetings started and this is just another one of the many questions about MRAC that will be resolved as we continue to convert our club files to electronic form.

As this is my last column, I wish to thank all of those that actively contribute to MRAC. Even though we

need more of you to contribute, when you think about it, there are many that do. We need more like them. I won't name them by name here, but among the contributors are those that run nets, provide meeting refreshments, run the raffle & transport/store the raffle items, program the repeater, keep the club history, store and transport all the equipment used at our meetings and staff the BOD. If you think this covers everything, remember we need folks to run classes, FD, recruit new members, plan our 95th anniversary event, etc. AND to improve MRAC by adding even more activities run by the club.

Thank you to all of you that contribute. As I step down as an officer of the club I promise to remain active and hope to be an example of an active member with a positive impact on this great club.

Take care. See you at the meetings.

73s, Mark AB9CD



MRAC Officers:

Terms Expiring in 2012

- President – Dave, WB9BWP
- Vice-President-Vacant
- Secretary – Mike, KC9CMT
- Treasurer – Vacant
- Director – Mark, AB9CD
- Director – Dave, KA9WXN

Terms Expiring in 2011

- Director – Al, KC9IJJ
- Director – Hal, KB9OZN
- Director – Dwain, KC9MJJ

The Club Phone Number is: (414) 332-MRAC or

(414) 332- 6 7 2 2

Visit our website at:

www.w9rh.org

Mail correspondence to:

M. R. A. C.

P.O. Box 240545

Milwaukee, WI 53223

Board of Director's Meeting Minutes

Meeting called to order at 6:58 PM.

Present: Mark AB9CD, Brian K9LCQ, Dave DeFebo WB9BWP, AL, KC9IJJ, , Hal KB9OZN, Dave KA9WXN, & Michael KC9CMT.

Excused: Dwain, KC9MJJ

Motion to accept Board of Directors' Meeting Minutes as Published in the HamChatter made by Hal, KB9OZN. Second by Brian, K9LCQ. Accepted by a vote of 7-0

Treasurer Report read by Mark, AB9CD for the period of March 1st to March 31st, 2010. Motion made to accept treasurers' report as read made by AL, KC9IJJ, Seconded by Hal, KB9OZN. Motion to accept carried by voice vote of 7-0.

PRELIMINARY DISCUSSIONS: Business cards presented to board of director members. Reports: Business cards have flaw from printer that will be corrected and redistributed next meeting. Club needs additional program topics for September through November.

Repeater Report:

No unusual activity noted during May. Activity is being monitored by club officers.

Old Business:

2011 SwapFest: Dave, KC9WXN may have found a place to hold the 2011 swapfest. He will report on this during the June board meeting.

Life Members: No progress to report on this during this meeting.

Net Committee: Board of Directors to establish formal committee to handle club nets. More on this during June meeting.

Elections: Nominating Committee polled membership one more time during May. Still in need of Candidates to run for club office and director positions. Elections will take place as planned during May membership meeting.

Programs:

June: We will be having a presentation on FD.

July & August: No meetings Scheduled.

September—December: No programs scheduled yet. Suggestions for new programs: Robots, Solar Power, Electric Cars.

Misc: FM Simplex Contest Certificates need to be sent to Brian for Printing.

New Business:

Volunteers: There is a great need to develop interest in Club positions and activities. Board may decide to drop the number of elected positions. No restructuring of club officer positions will be done before the May election Meeting. Discussion has been tabled for this month.

Field Day: Mark, AB9CD has decided to have a scaled down Field day this year due to waning interest from the membership. Club will run as 3A this year at Pioneer Village using member supplied equipment and a few club radios. Stations will be set up and time booked on available radios. See Marl, AB9CD to book radio time. Waukesha mentioned as possible future site of FD by Brian. (Brian lives in Waukesha) Board of Directors' voted to conduct Field day this year as proposed by Marl, AB9CD at Pioneer Village site.

Club Rosters runoff by Marl, AB9CD.

Club Badges: Club members can order Name Badges through MARK, AB9CD.

Anyone not paying dues by May 1st, will be removed from the yahoo group list by May 4th.

Motion to adjourn at 8:24 PM . Motion made by Brian K9LCQ, Second by Hal KB9OZN. Passed on voice vote without dissent 7-0.

Room returned to condition as found upon arrival.

Respectfully submitted,

Michael, KC9CMT

Membership Meeting Minutes

Election Meeting was held during May membership meeting in stead of normal Membership business matters. Elected to officer were:

Dave DeFebo, Club President
Michael Harris, Club Secretary
Dave Shank, Director
Mark Tellier, Director

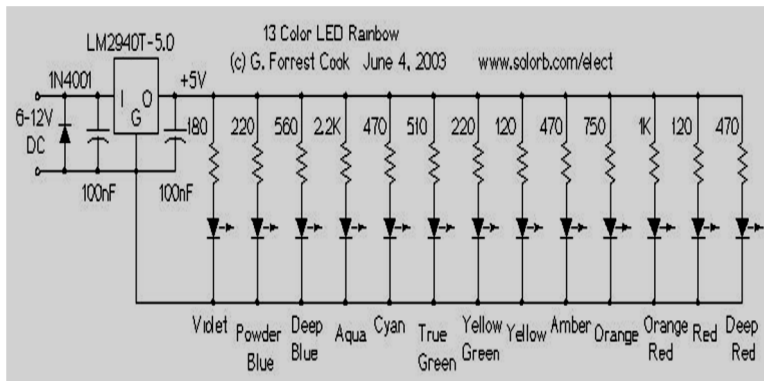
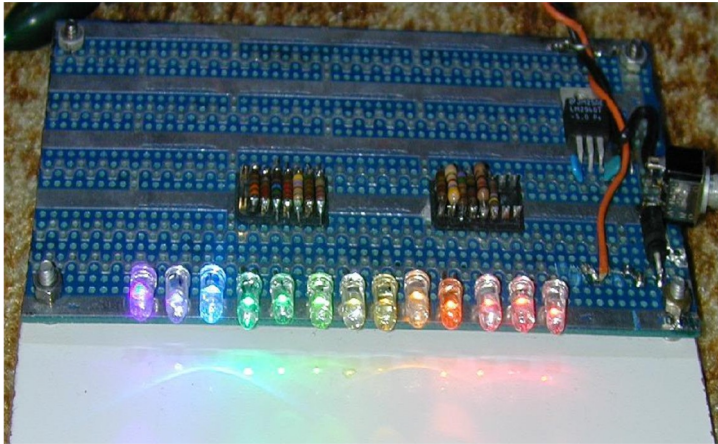
Please welcome our new officers to their positions.

Offices open: Vice-president, & Treasurer. Board of directors will discuss filling these important positions at the June meeting.

Club Auction was held after election meeting. This years auction was more successful then last years.

Experimenter's Bench

13 Color LED Rainbow (C) G. Forrest Cook February 8, 2005



Introduction

Only a few years ago, the choice of LEDs was limited to IR, red, yellow, and green (yellowish-green). The LED manufacturers have been busy extending the spectrum, and filling in the gaps. The latest generation of organic LEDs (OLEDs) has added some dazzling new colors to the spectrum. This circuit uses a set of 13 differently colored LEDs to generate a full color spectrum. The photo does not fully represent the colors generated due to camera limitations. The real-world display is very eye-catching. If you want to "trick out" your PC or favorite electronic project, this circuit is for you. Forget about those boring blue PC light displays.

Specifications

Operating Voltage: 6-12V DC
Operating Current: 145ma at 12V DC

Theory

The LM2940T-5.0 low dropout voltage regulator converts the 6-12V DC input power to regulated 5 Volts. It was chosen over a standard 7805 regulator so that the circuit could maintain regulation while operating on a 6V battery. The 1N4001 diode protects the circuit from reverse polarity, if a battery or power supply capable of generating over 1 amp is used, a 1

amp fuse should be installed between the supply and the circuit. The 5 Volts is used to drive each of the LEDs through individual current limiting resistors. The resistor values were determined experimentally for equal brightness. Values are given as examples only, different sources of LEDs will require different resistor values. Resistor selection turns out to be the most difficult part of the circuit's construction. A 100 ohm resistor in series with a 1K pot could be used in place of each resistor if individual brightness adjustments are desired. The table below lists the LED colors and wavelengths.

LED Color	Wavelength	Description
Deep Red	700nm	-
Red	660nm	traditional red LED
Orange Red	635nm	"high efficiency" red
Orange	623nm	also called red orange
Amber	594nm	-
Yellow	588nm	traditional yellow LED
Yellow Green	567nm	traditional green LED
True Green	523nm	-
Cyan	501nm	verde green, blue green
Aqua	495?nm	-
Deep Blue	470nm	ultra blue
Powder Blue	430nm	first generation "powder blue LED"
Violet	410nm	-

Construction

The circuit was built on a prototype perforated board with printed solder pads. The circuitry is hand-wired on the back side of the board. Care should be taken when soldering to the LEDs, a clip-on heat sink should be used while soldering the leads. Care should be taken to avoid zapping the LEDs on the violet side of the spectrum, they are sensitive to static electricity. The circuit board can be mounted on a piece of white hardboard, the white paint reflects the colors nicely.

Use

Apply power to the circuit and enjoy the colorful glow. Do not stare directly into the array at close range for extended periods, some of the LEDs are extremely bright.

Taking The Circuit Further

The spectrum could be extended on both the IR and UV sides. A brief scan through the Mouser catalog indicates the availability of these IR wavelengths: 940nm 880nm, 875nm, 870nm, 850nm. UV-A LEDs at 400nm, 395nm, 380nm, 360nm and 350nm are also available. Recently developed UV-B LEDs include 290nm, 280nm, 270nm, 265nm and 255nm. The LED museum has [a list](#) of available UV-A and UV-B LEDs. There are also many LED colors available with wavelengths between the 13 colors shown, the colors selected were chosen for an evenly spaced color spectrum.

An open-collector LED driver circuit could be connected to the negative LED leads for computer control.

The circuit could be used in conjunction with a photo detector for characterizing optical filter curves. Typically, the photo detector output is sent to a logarithmic converter, the log-ratio of the direct light versus the filtered light characterizes the attenuation at a given wavelength.

Parts

Most of the LEDs were purchased from Digi-Key, Jameco, and Mouser. All of the parts were T1-3/4 size, clear packages were used wherever possible. LEDs from different manufacturers may have different focus characteristics. All of the resistors are 1/4 Watt parts. LED part numbers are not available, the rainbow was assembled from parts that were accumulated over several years. Beware that different LED manufacturers use different names for their colors, the wavelength is the best indicator of the color. The Aqua LED is the most difficult part to find, [All Electronics](#) carries them, although the wavelength is unspecified. Another source of colored LEDs is [TheLEDLight.com](#), they have a nice [LED Color Chart](#). This company: [LSDiodes Optoelectronics](#) (used to) sell some interesting LED colors, they still have some useful LED data online.

I find it somewhat amazing that, to my knowledge, no LED manufacturer has produced a commercial packaging of colored LEDs similar to this project (as of 2009). It would be wonderful if a company would assemble 8 or 10 unique colors into a standard DIP VU meter LED block. It's only a matter of time, I would love to hear about such a part if it ever becomes available.

See my [Fluorescent Magic Eye Tubes](#) page for some older visually interesting electronic devices. The [Regulated 24 Watt Broad Spectrum LED Lamp](#) project takes the multi-color LED array to a higher power level but with fewer colors.

Next Regular Meeting

The next meeting will be June 24th at 7:00PM. We meet in the Fellowship Hall of Redemption Lutheran Church, 4057 N Mayfair Road. Use the south entrance.

Please do not call the church for information!

Club Nets

Please check in to our nets on Friday evenings.

Our ten meter SSB net is at **8:30 p.m. at 28.490 MHz USB.**

Our two meter FM net follows at 9:00 p.m. on our repeater at **145.390 MHz** with a minus offset and a **PL of 127.3 Hz.**

Visit our website at: www.w9rh.org

Or phone (414) 332-MRAC or 332 - 6722

Chatter Deadline

The **DEADLINE** for items to be published in the **Chatter** is the 15th of each month. If you have anything (announcements, stories, articles, photos, projects) for the 'Chatter, please get it to me before then.

You may contact me or Submit articles and materials by e-mail at: Kc9cmt@earthlink.net

or by Post at:

Michael B. Harris

807 Nicholson RD

South Milwaukee, WI 53172-1447

Fox Cities ARC Special Event Station

The Fox Cities Amateur Radio Club, W9ZL will once again operate a Special Event station from the grounds of the EAA AirVenture 2010. We will operate 5 days – Wednesday through Sunday, during the last week of July. This operating event is open to all license classes. We will operate 2 HF stations, one on 20m and one on 40m, plus local communications on 2-meters. The club call, W9ZL, will be used throughout the event.

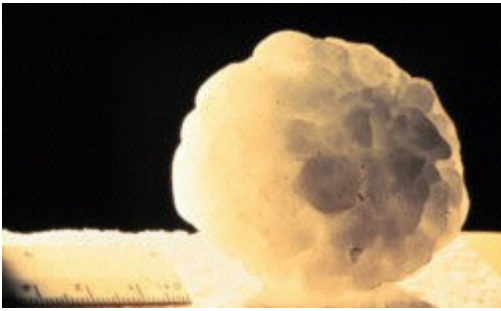
We are looking for both "am" and "pm" operators covering each of the 5 days. You can sign up for one shift or more if you so desire. The event is open to all of the amateur community. If operators sign up for a 4 hour shift, they will be given a daily wristband that will allow them to go and wander around the Fly-in.

For further information and to sign up to operate the event go to: <http://fcarc.us/eaa/eaa.htm> or contact Jon Oldenburg AB9AH @ ab9ah@arrl.net, or (920)832-9727

Thanks' Jon Oldenburg AB9AH , Special Event Coordinator
EAA AirVenture 2010

**Club Repeater,
145.390Mhz Minus Offset
(127.3 PL)**

Why does hail form and how does hail form?



When large hail falls with strong winds, it can become a deadly projectile. Ranchers across America tell stories about hail storms that had killed their cattle because they were trapped in an open field during a thunderstorm. Scientists commissioned by the National Geographic television channel studying the remains of 200 people buried in Himalayas dating from the 9th century found that Giant hail apparently killed them. According to the Guinness Book of World Records, the heaviest hailstones on record weighed up to 2.2lb and killed 92 people in Bangladesh in 1986.

How does large hail form or why does hail form?

Updrafts within thunderstorms push rain high into the cloud where very cold air freezes it. Once frozen it starts to fall but gets caught in another strong updraft where it gathers more moisture on its way back up making it larger. If the updrafts are strong enough they will continue this process for long periods of time allowing the hail to accumulate more moisture and more moisture. In a severe thunderstorm downdrafts may act like a wedge and increase the intensity of the updraft. Updrafts can get so strong they even intrude into the stable stratosphere. When updrafts are this strong it becomes possible to suspend large hail for long periods of time further adding moisture to the hail, sometimes building it to incredible sizes. Updraft winds can be from 100 to 120 miles per hour when producing baseball and larger size hail.

Hailstone size	Size in.	Updraft Speed mph
bb	< 1/4	< 24
pea	1/4	24
marble	1/2	35
dime	7/10	38
penny	3/4	40
nickel	7/8	46
quarter	1	49
half dollar	1 1/4	54
walnut	1 1/2	60
golf ball	1 3/4	64
hen egg	2	69
tennis ball	2 1/2	77
baseball	2 3/4	81
tea cup	3	84
grapefruit	4	98
softball	4 1/2	103

Lightning Safety - Keeping safe Outdoors

Reprinted with permission from: www.Tornadochasers.net

Each year, about 400 children and adults in the U.S. are struck by lightning while working outside, at sports events, on the beach, mountain climbing, mowing the lawn or during other outdoor activities. About 67 people are killed and several hundred more are left to cope with permanent disabilities. Many of these tragedies can be avoided. Finishing the game, getting a tan, or completing a work shift aren't worth death or crippling injury.



Credit: National Oceanic and Atmospheric Administration/Department of Commerce for photos

- **All thunderstorms produce lightning and are dangerous.** Lightning kills more people each year than tornadoes.
- **Lightning often strikes as far as 10 miles away from any rainfall.** Many deaths from lightning occur ahead of the storm because people try and wait to the last minute before seeking shelter.
- **You are in danger from lightning if you can hear thunder.** If you can hear thunder, lightning is close enough that it could strike your location at any moment.
- **Lightning injuries can lead to permanent disabilities or death.** On average, 10% of strike victims die; 70% of survivors suffer serious long term effects.
- **Look for dark cloud bases and increasing wind.** Every flash of lightning is dangerous, even the first. Head to safety before that first flash. If you hear thunder, head to safety!

Blue Skies and Lightning. Lightning can travel sideways for up to 10 miles. Even when the sky looks blue and clear, be cautious. If you hear thunder, take cover. At least 10% of lightning occurs without visible clouds overhead in the sky.

The Single Most Dangerous Place

Outdoors is the most dangerous place to be during a lightning storm. When lightning is seen or thunder is heard, or when dark clouds are observed, quickly move indoors or into a hard-topped vehicle and remain there until well after the lightning storm ends. Listen to forecasts and warnings through NOAA Weather Radio or your local TV and radio stations. If lightning is forecast, plan an alternate activity or know where you can take cover quickly.

The U.S. lightning season is summer but lightning can strike year round! The Fourth of July is historically one of the most deadly times of the year for lightning. In summer, more people are outside, on the beach, golf course, mountains or ball fields. Outdoor jobs such as construction and agriculture, and outdoor chores such as lawn mowing or house painting are at their peak, putting those involved in danger.

Safety Rules

1. **Postpone activities promptly. Don't wait for rain.** Many people take shelter from the rain, but most people struck by lightning are not in the rain! Go quickly inside a completely enclosed building, not a carport, open garage or covered patio. If no enclosed building is convenient, get inside a hard-topped all-metal vehicle. A cave is a good option outside but move as far as possible from the cave entrance.
2. **Be the lowest point. Lightning hits the tallest object.** In the mountains if you are above treeline, you ARE the highest object around. Quickly get below treeline and get into a grove of small trees. Don't be the second tallest object during a lightning storm! Crouch down if you are in an exposed area.
3. **Keep an eye on the sky.** Look for darkening skies, flashes of lightning, or increasing wind, which may be signs of an approaching thunderstorm.
4. **Listen for the sound of thunder.** If you can hear thunder, go to a safe shelter immediately.
5. **If you see or hear a thunderstorm coming or your hair stands on end, immediately suspend your game or practice and instruct everyone to go inside a sturdy building or car.** Sturdy buildings are the safest place to be. Avoid sheds, picnic shelters, baseball dugouts, and bleachers. If no sturdy building is nearby, a hard-top vehicle with windows closed will offer some protection. The steel frame of the vehicle provides some protection if you are not touching metal.
6. **Listen to NOAA Weather Radio.** Coaches and other leaders should listen for a tone-alert feature during practice ses-

sions and games.

7. If you can't get to a shelter, stay away from trees. If there is no shelter, crouch in the open, keeping twice as far away from a tree as it is tall.

8. Avoid leaning against vehicles. Get off bicycles and motorcycles.

9. Get out of the water. It's a great conductor of electricity. Stay off the beach and out of small boats or canoes. If caught in a boat, crouch down in the center of the boat away from metal hardware. Swimming, wading, snorkeling and scuba diving are NOT safe. Lightning can strike the water and travel some distance beneath and away from its point of contact. Don't stand in puddles of water, even if wearing rubber boots.

10. Avoid metal! Drop metal backpacks, stay away from clothes lines, fences, exposed sheds and electrically conductive elevated objects. Don't hold on to metal items such golf clubs, fishing rods, tennis rackets or tools. Large metal objects can conduct lightning. Small metal objects can cause burns.

Move away from a group of people. Stay several yards away from other people. Don't share a bleacher bench or huddle in a group.

What to do if someone is struck by lightning:

- **Call for help.** Call 9-1-1 or your local ambulance service. Get medical attention as quickly as possible.
- **Give first aid.** If the victim has stopped breathing, begin rescue breathing. If the heart has stopped beating, a trained person should give CPR. If the person has a pulse and is breathing, address any other injuries.

Check for burns in two places. The injured person has received an electric shock and may be burned. Being struck by lightning can also cause nervous system damage, broken bones, and loss of hearing or eyesight. People struck by lightning carry no electrical charge that can shock other people. You can examine them without risk.

The Jet Stream - Upper air flow and Severe Weather

Understand that without upper air winds, a thunderstorm would grow vertically, the rain would fall down directly into the updraft, inhibiting the updraft or destroying it. So upper air winds are vital to long lived severe thunderstorms and tornadoes. This is why checking upper air maps is an important factor for chasers to watch carefully when chasing. Most of this data is gathered by weather balloons, and they are sent up only twice daily, 12 hours apart, at stations spread all over the US, many with hundreds of miles between them. This is one of the aspects about upper air that chasers and forecasters grapple with, the limited data due to times available for upper air updates.

This infrequent gathering of information is part of the reason why predicting exactly where the storms will have the greatest potential for severe weather and tornadoes is so difficult. I have watched jet stream predictions change 100 miles or more in the 12 hours between balloon launches. Just read the jet stream prediction maps and then when that time actually arrives check to see where they actually are. You will find sometimes they are off by 100 miles, while other times they are dead on. Upper air winds can be stronger or weaker than forecast, move further north or south, drastically changing the storms life, intensity, and location.

On a good storm day, as storms build you will see thunderstorms leaning as they build, much like a small tree bending in a strong wind, being pushed about by the differing wind directions. This wind shear can be seen with the eye just by watching the storms grow sideways. This leaning allows the falling rain to fall away from the updraft, and not in it, thereby allowing the updraft to continue and even strengthen. On some days the wind shear is so strong you will see storms leaning so much that their tops get blown off and then they are seen racing away from the rest of the cloud. As the storms strengthen they overcome this shear with enough force to keep building and stay together with the end result of strong shear within the storm, and often spin or storm rotation.

A spinning (rotating) thunderstorm is called a mesocyclone when it meets certain criteria. Properly used, mesocyclone is a radar term; it is defined as a rotation signature appearing on Doppler radar that meets specific criteria for magnitude, vertical depth, and duration. But with experience you will become able to pick out most mesocyclone storms with your eye as they are usually very evident to the seasoned chaser. Experience will help you identify them accurately.

Next, if a jet stream moves over the top of a building storm and pulls the top of the building storm away from the main updraft, it kicks the storms into high gear causing some of the most violent storms and tornadoes. Rather than the top of the storm flattening out you see it being pulled one direction, stretching the top out and elongating it sometimes for many miles.

(Don't try this at home, it makes a real mess and can be deadly.)

EXAMPLE: If there was a small fire in your fireplace and then something covers up the chimney. What happens? The smoke backs down the chimney into the house, it has no place to go. Same with storms. They build to a point and then hit a ceiling of air that stops them from growing.

Now if that same cover was removed from your chimney and what happens to the smoke? It can rise up and out freely again, just as strong upper air winds can allow storms to keep rising and building.

Now one more example. With nothing covering your fireplace chimney and the flue is wide open, and it is a windy day with winds of 40 or 50 miles per hour racing over the top of your chimney. What would happen then? Well if you have ever been by a fireplace when it is really windy you will see the fire burns hotter unless you restrict the updraft in the fireplace by closing down the flue. A powerful wind over your chimney makes the updraft stronger. The same with a strong jet stream placed over a storm, it speeds the updraft rates significantly.

So, a well positioned jet, will vent the storm, pulling the rising air up faster and away from the main body of the storm,

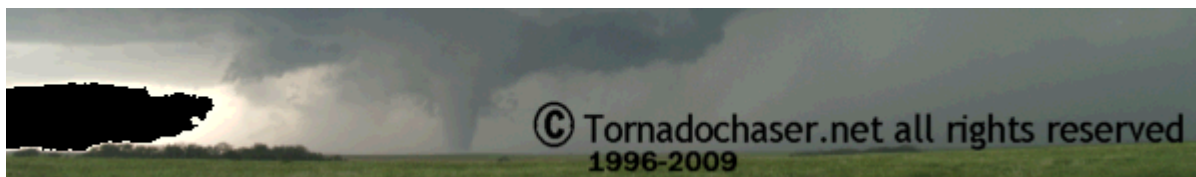
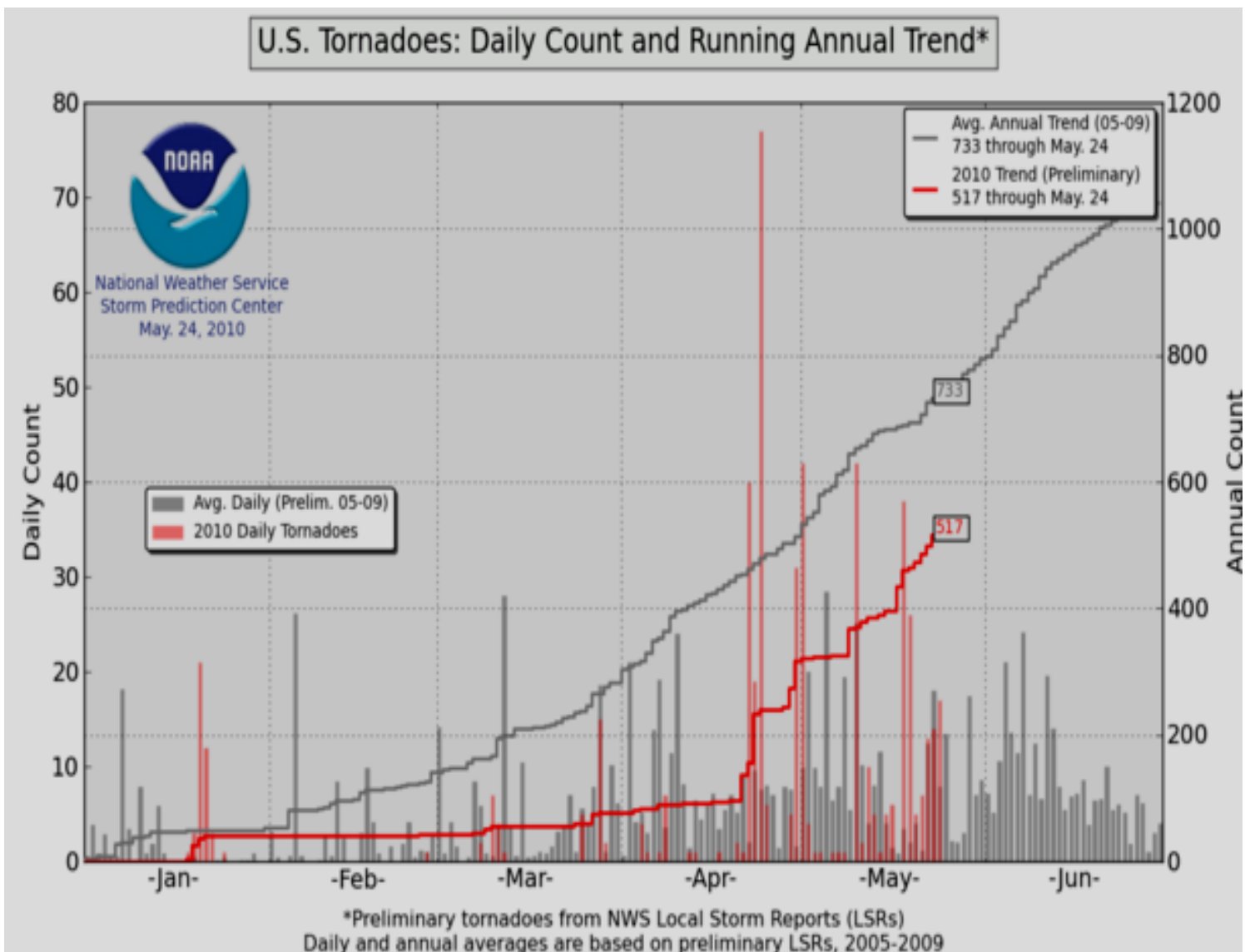
Microburst dynamics concluded:

letting the updraft strengthen. This kind of venting on storms is called divergent flow aloft, and is a main contributor to violent storms. I have seen storms like this and they act like giant vacuum cleaners, sucking all the clouds and moisture up and into them. I have seen clouds racing into the storm only to seem to disappear into it, but in reality are racing upward in the strong updraft of the storm.

One more area of added potential for violent storms is an area of maximum winds within the jet stream, called the jet "Streak" or jet "max". This area in the jet has a big impact on storm growth and development. The jet streak moves along the jet stream at a slower speed than the wind in the maximum area. As jet stream air enters and leaves this area of high winds, the accelerations act to induced upper level divergence in the forward left quadrant (I), thus promoting convective activity. Rapid thunderstorm growth can be anticipated as the jet max approaches the warm sector of the surface low pressure area. (Barnes and Newton, 1983)

So keep an eye on upper air maps, where is the jet stream forecast to be, and where is the low pressure in relation to this. Look for an area of warm air that is being pulled into the low pressure area by the jet, and you may have the target location of the day.

(Much of this information was learned from Thomas P. Grazulis, "A chronology and Analysis of Events, Significant Tornadoes 1680-1991". (Available at most University Libraries) We learn through reading.



Testing & Local Swapfests

VE Testing

Next VE Testing on July 31st between 10am-noon.

No VEC Testing in: March, June, August or December. All testing takes place at:

***Amateur Electronic Supply 5720 W. Good Hope Rd.
Milwaukee, WI 53223***

Swapfests

Saturday, July 10, 2010 --- 6:00AM

South Milwaukee Amateur Radio Club SWAPFEST!



Membership Information

The Hamateur Chatter is the newsletter of MRAC (Milwaukee Radio Amateurs' Club), a not for profit organization for the advancement of amateur radio and the maintenance of fraternalism and a high standard of conduct. MRAC Membership dues are \$17.00 per year and run on a calendar year starting January 1st. MRAC general membership meetings are normally held at 7:00PM the last Thursday of the month except for November when Thanksgiving falls on the last Thursday when the meeting moves forward 1 week to the 3rd Thursday and December, when the Christmas dinner takes the place of a regular meeting. **No meetings will be held in July and August during the very busy summer season.** Club Contact Information Our website address <http://www.w9rh.org>

Telephone (414) 332-MRAC (6722)

Address correspondence to:

MRAC PO Box 070695,

Milwaukee WI 53207-0695.

Email may be sent to

w9rh@arrrl.net

Our YAHOO newsgroup:

<http://groups.yahoo.com/group/MRAC-W9RH/>

American Legion Post #434
9327 S. Shepard Ave
Oak Creek, Wi. 53154
Tickets: \$5.00
Food & Beverages available after 6:00AM

Working Committees

Field Day

- Open

FM Simplex Contest

- Joe - N9UX
- Jeff-K9VS
- Dave-WA9WXN
- Brian-K9LCQ
- Mark-AB9CD

Ticket drum and drawing

- Tom - N9UFJ
- Jackie - No Call

Newsletter Editor

- Michael-KC9CMT

Webmaster

- Joe Schwartz—N9UX

Refreshments

- Michael - KC9CMT

CLUB NETS:

- Our Ten Meter SSB net is Friday at 8:00PM on 28.490 MHz \pm 5 KHz USB.
- Our Two Meter FM net follows the Ten meter net at 9:00PM on our repeater at 145.390MHz - offset (PL 127.3)

Milwaukee Area Nets

Mon.8:00 PM 3.994 Tech Net

Mon.8:00 PM 146.865- ARES Walworth ARRL News Line

Mon.8:00 PM 146.445 Emergency Net

Mon.8:00 PM 146.865- ARES Net Walworth

Mon.8:45 PM 147.165- ARRL Audio News

Mon. 9:15 PM 444.125+ Waukesha ARES Net

Mon.9:00 PM 147.165- Milwaukee County ARES Net

Tue.9:00 AM 50.160 6 . Mtr 2nd Shifter's Net

Tue. 7:00 PM 145.130 MAARS Trivia Net

Tue. 8:00 PM 7.035 A.F.A.R. (CW)

Wed. 8:00 PM 145.130 MAARS Amateur Radio Newsline

Wed. 9:00 PM 145.130 MAARS IRLP SwapNet d FM-38 Repeaters (IRLP 9624)

Thur. 8:00 PM 50.160, 6 Mtr SSB Net

Thur. 9:00 PM 146.910 Computer Net

Fri. 8:30 PM 28.490 MRAC W9RH 10 Mtr Net SSB

Fri. 9:00 PM 145.390 W9RH 2 Mtr. FM Net

Sat. 9:00 PM 146.910 Saturday Night Fun Net

Sun 8:30 AM 3.985 QCWA (Chapter. 55) SSB Net

Sun 9:00 AM 145.565 X-Country Simplex Group

Sun 8:00 PM 146.91 Information Net

Sun 8:00 PM 28.365 10/10 International Net (SSB)

Sun 9:00 PM 146.91 Swap Net

2 meter repeaters are offset by 600KHz - - 70 centimeter repeaters are offset by 5 MHz

SSB frequencies below 20 meters are LSB and for 20 Mtr and above are USB.

CLUB BADGES

At a recent meeting we received inquiries about where to get club badges. We haven't ordered club badges for some time and checking with our old vendor we found the price had more than doubled, not including shipping charges (the vendor is located on the west coast). We have done some checking locally and found a new vendor that can produce laser etched badges for \$7.25 each with the opportunity for discounts for group orders. An order of 2 to 10 badges will cost \$7.00 and 11 or more will cost \$6.50. Tax is included in all of these prices. Because they are local, we are able to save shipping and make badges available at meetings for pick-up.

The club will take orders via email and at the June meeting with the goal of getting a group order of 11 or more to take advantage of the \$6.50 price. As an added incentive, I'll contribute a half of a buck to each badge ordered to make the price ONLY \$6.00 each. This offer is only good for our first group order. After that the prices given above will apply.

A sample badge is shown below. I'll have this badge available to examine at the June meeting.

If you want a badge, we'll need you to specify your call sign and how you want your name spelled/etched on the badge. We also need you to specify the type of attachment you want for your badge. The options are magnetic, military posts, clasp pin and spring clip. My badge has the magnetic option. Badges are 3.5" wide by 1.75" high.

Stop by the meeting to sign up or email yours truly at call sign @ arrl.net.

Mark AB9CD

